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			EXAMINER POON, KING Y	
			ART UNIT 2624	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,869

Applicant(s)

BABA ET AL.

Examiner

King Y. Poon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The amended title, drawings, and specification have been accepted.

Claim Objections

2. Claim 4 is objected to because of the following informalities: "the device control filter is not analyzing and processing a print data" appears to be referring to a particular print data because print data is not countable except when the print data is a particular print data. It is better to change processing a print data to processing a particular print data. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2: Claim 2 is claiming wherein the device control filter analyzes and processes the print data being read out to the end of the print file from the spool file. Claim 2 depends on claim 1; claim 1 is claiming the print data of the print file is located in the print data storing unit. The print data storing unit and the spool file are different memories. Therefore, the print data of the print file is read out from the print

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data storing unit and not from the spool file. Therefore, claim 2 (print data of the print file is read out from the spool file) appears contradicting claim 1.

Regarding claim 4: Claim 4 recites the limitation "read out said print data of said print job" in line 15. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the print data is referring to the print data that is to be processed by the device control filter of line 11 or the read out print data of line 9. In the claim rejection, the print data is being interpreted as the print data that is to be processed by the device control filter of line 11.

Regarding claim 5: Claim 5 is rejected under 35 U.S.C. 112, second paragraph because claim 5 depends on rejected claim 4.

Regarding claim 6: Claim 6 recites the limitation "said file" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the file is referred to the print file or the spool file of claim 4.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,213,652) in view of Schoenzeit et al. (US 5,619,624).

Regarding claim 1: Suzuki teaches a processing system (fig. 27, column 41, lines 45-50, print processing device) comprising: processing units (the units in the processing device excluding job execution section, column 41, lines 45-50) for registering a print request command (attributes of a print job, column 44, lines 60-68, column 45, lines 1-15; e.g., the after complete processing or before complete processing, column 43, line 60) of an accepted print job (column 41, line 55, column 45, lines 27-31), storing a print file (documents data of a print job, column 41, lines 65-67, fig. 30a-c, column 45, lines 27-31) of the print job in a print data storing unit (spool, column 41, line 66, column 45, lines 1-5; also see column 41, lines 55-60, job acceptance section unifies various type of format of the received print job and passes the unified format print job to the job control section, since the unifying process takes time, the job control section must have (inherent) a storage for storing the print job to prevent the print job from being lost during the unifying process), reading out (storing document data from the job acceptance section 201, column 41, lines 55, to the printer queue 260, column 44, lines 37-50, also see 214, fig. 28) print data (a print job inherently consists of print data) of the print file in accordance with the print request command and writing the print data to a spool file (the area of the printer queue 260, column 44, lines 37-50 that stores document data); a device control filter (job execution section, converter, column 42, lines 19-30) for analyzing and processing (converts a print format, column 42, lines 18-21, for example converting print job data into PDL, converting a print format of the job requires analyzing and processing the print data of the job) the print data sequentially read out from the spool file, (queuing document in printer queue S11, fig. 31 before

being processed by the printer, a queue is a FIFO type of memory, inherent properties of a queue) by the processing unit so as to output the print data so analyzed and processed to a printer, (printer, column 42, line 20-25), wherein the processing unit starts writing the print data of the print file to the spool file in accordance with the print request command (column 46, lines 1-10, fig. 31, column 4, lines 15-20), when it starts storing said print file in the print data storing unit (column 44, lines 37-45, column 44, lines 1-6, teaches storing the document of a print job in the printer queue while the system is receiving the print job; note, before the print job is stored in the queue, it must be stored in a spool/memory in the job acceptance section, column 41, lines 55-67, column 4, lines 10-20).

Suzuki, in embodiment 4, does not teach the job processing units and the job execution section are implemented in a processor.

Schoenzeit, in the same area of using processing system (image server, column 5, lines 35-40, fig. 3) for receiving print jobs in a printer queue (RIP queue, column 5, lines 47-46-60) to be read out and processed by an job execution section, (RIP, column 5, lines 60-66), teaches the system of individual modules for: receiving prints jobs, (RIP queue, fig. 3), storing the print job, (RIP queue, fig. 3) reading the print job, (selector, fig. 3) processing the read print data, (RIP, fig. 3) and sending the processed print data to a printer, (output queue, fig. 3) can be implemented as a single processing unit/processor. (Server, column 5, lines 35-40, fig. 3)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processing system to

include: implementing the job processing units and the job execution section into a single processing unit. (Processor)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processor by the teaching of Schoenzeit because of the following reasons: (a) it would have allowed the document data to be processed directly in a processor and thereby, eliminating providing extra circuits/processor for processing the document data before it is being sent to the printer to reduce cost; and (b) it would have simplified the complexity of the system by allowing the print data processing to be carried out in a single processing unit instead of using separated, different processing units.

Regarding claim 3: Suzuki teaches wherein the processing unit can accept and register a plurality of print jobs, (jobs, column 41, line 57) and wherein the device control filter can analyze and process print data processing (converts a print format, column 42, lines 18-21, for example converting print job data into PDL, converting a print format of the job requires analyzing and processing the print data of the job) of respective print files (each job is having a file (collection of data) for storing the respective print job documents, column 44, lines 40-50, column 45, lines 27-31) read out in accordance with the print request command (e.g., the after complete processing command, S4, fig. 31) for output to a plurality of different printers (column 43, lines 22-35, column 44, lines 38-40).

Regarding claim 4: Suzuki teaches a processing system (fig. 27, column 41, lines 45-50, print processing device) comprising: processing units (the units in the processing

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device excluding job execution section, column 41, lines 45-50) for storing print data of a plurality of accepted print job (jobs, column 41, lines 55-67, column 45, lines 27-31) in a print data storing unit (spool, column 41, line 66, column 45, lines 1-5; also see column 41, lines 55-60, job acceptance section unifies various type of format of the received print job and passes the unified format print job to the job control section, since the unifying process takes time, the job control section must have (inherent) a storage for storing the print job to prevent the print job from being lost during the unifying process), reading out (storing document data from the job acceptance section 201, column 41, lines 55, to the printer queue 260, column 44, lines 37-50, also see 214, fig. 28) sequentially a print file of (print document of a print jobs fig. 30a-c, fig. 29, column 46, lines 1-7) each print job from said print data storing unit and writing the print data to a spool file (the area of the printer queue 260, column 44, lines 37-50 that stores document data); a device control filter (job execution section, converter, column 42, lines 19-30, processing section of column 44, lines 30-35) for reading out the print file from the spool file, analyzing and processing (converts a print format, column 42, lines 18-21, for example converting print job data into PDL, converting a print format of the job requires analyzing and processing the print data of the job) the read out print data, and outputting the print data to a printer, (printer, column 42, line 20-25), wherein the device control filter is not analyzing and processing a print data, (the print data (e.g., print job data of print job 1, fig. 29) that is not being send out of the queue when the print data is being stored in the queue S5, fig. 31), said processing unit reads out the print data (e.g., print job data of print job 1, fig. 29) of the print job in accordance with a

specific condition (the condition of whether the print job is job 1 or job 2, column 44, lines 37-57, column 43, lines 55, column 44, lines 30-35, fig. 29) which determines an output sequence of the registered print jobs (column 41, lines 55-65, stored and identified print job such that the print job would be able to be retrieved) stored in the print data storing unit, and writes the read out data to the spool file (printer queue, fig. 31).

Suzuki, in embodiment 4, does not teach the job processing units and the job execution section are implemented in a processor.

Schoenzeit, in the same area of using processing system (image server, column 5, lines 35-40, fig. 3) for receiving print jobs in a printer queue (RIP queue, column 5, lines 47-46-60) to be read out and processed by an job execution section, (RIP, column 5, lines 60-66), teaches the system of individual modules for: receiving prints jobs, (RIP queue, fig. 3), storing the print job, (RIP queue, fig. 3) reading the print job, (selector, fig. 3) processing the read print data, (RIP, fig. 3) and sending the processed print data to a printer, (output queue, fig. 3) can be implemented as a single processing unit/processor. (Server, column 5, lines 35-40, fig. 3)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processing system to include: implementing the job processing units and the job execution section into a single processing unit. (Processor)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processor by the teaching of

Schoenzeit because of the following reasons: (a) it would have allowed the document data to be processed directly in a processor and thereby, eliminating providing extra circuits/processor for processing the document data before it is being sent to the printer to reduce cost; and (b) it would have simplified the complexity of the system by allowing the print data processing to be carried out in a single processing unit instead of using separated, different processing units.

Regarding claim 5: Suzuki teaches wherein said processing units starts writing said print data of the print file to the spool file in accordance with a print request command (before complete processing command, no of S4, fig. 31, column 45, lines 65-67, column 4, lines 15-20, teaches to write print data to the printer queue instead of a waiting queue), when it starts storing of the print file in the print data storing unit (column 44, lines 37-45, column 44, lines 1-6, teaches storing the document of a print job in the printer queue while the system is receiving the print job; note, before the print job is stored in the queue, it must be stored in a spool in the job acceptance section, column 41, lines 55-67, column 4, lines 10-20).

Regarding claim 6: Suzuki, in embodiment 4 does not teach teaches wherein the processing unit can read out print data of the file (spool) for supply to device control filter only when a requester of printing releases the print job from a hold condition in a case wherein the print job is accepted in the hold condition.

However, Suzuki, in column 26, lines 45-55, teaches wherein the processing unit can read out print data of the file (spool) for supply to device control filter only when a

requester (user) of printing releases the print job from a hold condition in a case wherein the print job is accepted in the hold condition.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's embodiment 4 to include: wherein the processing unit can read out print data of the file (spool) for supply to device control filter only when a requester of printing releases the print job from a hold condition in a case wherein the print job is accepted in the hold condition.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's embodiment 4 because (a) it would have allowed a user to control when to process the print job and (b) allowing a user to control the print job would prevent the system of printing when there is an obvious error in the judgment of the user.

Regarding claim 2: Since the claimed limitation of claim 2 is contradicting with claim 1, it can not be properly rejected. It is not possible to have the print data of the print file to be read out from the spool file while the print data of the print file is not located in the spool file (the print data of the print file is located in the print data storing unit).

Response to Arguments

7. Applicant's arguments filed on 1/23/2004 have been fully considered but they are not persuasive.

With respect to applicant's argument, on the top of page 9, that Suzuki does not teaches a storing unit in addition to the spool file has been considered.

In reply: Suzuki, embodiment 4, column 41, lines 55-67, and column 45, lines 1-5, teaches the document is being stored in the spool of the job acceptance section. Column 44, lines 35-56, teaches the queue management section has printer queue prepared for each printer for storing print job documents. Fig. 27 and fig. 28, teaches the job acceptance section is separated from the queue management section which is part of the job control element section. Therefore, Suzuki teaches a storing unit (the storing unit/spool in the job acceptance section) in addition to the spool file (printer queue).

Furthermore, column 41, lines 55-60, Suzuki, teaches job acceptance section unifies various type of format of the received print job and passes the unified format print job to the job control section. Since the unifying process takes time, the job control section must have (inherent) a storage for storing the print job to prevent the print job from being lost during the unifying process.

With respect to applicant's argument, on page 10, that in Suzuki, a most suitable print job in accordance with a specific condition for determining the output order cannot be selected from the accepted print jobs, has been considered.

In reply: Selecting a most suitable print job in accordance with a specific condition for determining the output order from the accepted print jobs, is not one of the claimed limitations.

Claim 4 is claiming wherein the device control filter is not analyzing and processing a (particular) print data, the processing unit reads out the (particular) print data of the print job in accordance with a specific condition which determines an output sequence of the registered print job stored in the print data storing unit.

Fig. 31, S35, Suzuki, teaches the documents of a print job (e.g., print job 1, fig. 29) are being queued in a waiting queue before they are being sent to the printer queue. The job execution section/device control filter cannot process the print job before the print job is being sent to the printer queue, column 44, lines 37-57). Column 43, lines 8-28, lines 49-53. Column 44, lines 37-57, Suzuki, teaches the print job being stored and registered in the spool file (column 41, lines 55-67) is being read out and stored in a printer queue according to whether the print job is being assigned print job 1 or print job 2 or print job N (specific condition determining the sequence, also see fig. 29) to determine the output sequence (1-N).

Applicant, top of page 10, amendment filed on 1/23/2004, admits that Suzuki checks a plurality of registered print job at the given sequence, and prints the print data of the print job if it is possible to print them. Applicant broadly claims "reads out the print data of the print job accordance with a specific condition." The examiner broadly interprets the specific condition as the given sequence that is to be checked.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892 or to Supervisor Mr. David Moore whose phone number is (703) 308-7452.

April 8, 2004

King Y. Poon